3625 Del Amo Boulevard, Suite 180 Torrance, California 90503-1643 (310) 370-8370 (310) 370-7026 FAX www.hygienetech.com

February 28, 2014

California State Board of Equalization 450 N Street Sacramento, California 94279

Document No. 21402001.2

Attention: Vince Paul

Regarding: 5<sup>th</sup> Floor Women's Restroom

450 N Street, Sacramento

Dear Mr. Paul:

On February 7 through 9, 2014, Lakhpreet Sandhu, Industrial Hygienist, with Hygiene Technologies International, Inc. (HygieneTech), visited the Women's Restroom located on 5<sup>th</sup> Floor of the California State Board of Equalization (BOE) building to perform follow up inspection and monitor water intrusion response activities being performed by Department of General Services (DGS) personnel with regards to a recent water intrusion episode involving a leak at the main waste pipe riser on the 7<sup>th</sup> Floor Women's Restroom that was reported on January 31, 2014. On those dates, HygieneTech inspected the work area, documented work area conditions following various activities conducted by DGS personnel, and performed exposure potential/clearance testing. The findings of the surveys, along with the conclusions, a discussion of the analytical data, and recently recorded observations, appear below.

On the evening of February 7, 2014, prior to the containment preparation work, prior removal of toilet stall partitions at the southeastern corner was observed. During the preparation work, one toilet fixture located at the southeastern corner of the restroom was removed. Upon removal of toilet fixture, the waste pipe opening was immediately covered to eliminate potential sewer related odors in the work area. Additionally, during the containment preparation work, HygieneTech inspected the 5<sup>th</sup> Floor Women's Restroom areas adjacent to the main waste pipe riser with the building management personnel and/or their contractors. During the visual inspection, minor degree of water staining was observed on some building materials; however, there was no evidence of visual mold growth observed on any of the accessible building materials.

During the remediation activities, controlled negative pressured containment monitored by manometer was constructed in southeastern corner of the 5<sup>th</sup> Floor Women's Restrooms and the air was exhausted through a restroom vent located at the southeastern corner of the restroom. Prior to the removal of affected building materials, the toilet seat cover dispenser located on the eastern partition wall adjacent to the plumbing cavity was removed for inspection purpose and portion of plumbing cavity within the work area was isolated with plastic sheeting and tape. Small section of main waste pipe riser within ceiling plenum area was wet-wiped and cleaned. During the isolation of portion of plumbing cavity area from the

Mr. Vince Paul February 28, 2014 Document No. 21402001.2 Page 2



ceiling plenum, two small sections of gypsum board materials exhibiting minor water staining were cleaned and reportedly encapsulated. A small section of fireproofing material exhibiting minor water staining was also observed in the ceiling plenum area and reportedly would be encapsulated per building management representatives.

A section of the northern partition wall of the southeastern corner toilet stall was removed to facilitate access to the plumbing cavity interior areas. Please note that no evidence of visual fungal growth was observed on any of the building materials in the area of wall materials removal and adjacent areas of the plumbing cavity; however, some degree of water staining related to the waste pipe leak, as well as some degree of water staining not related to the waste pipe leak were observed. The affected gypsum board materials from the fire rated core wall within the plumbing cavity interior areas were not removed based on concerns raised by building management. Small section of the eastern partition wall of the plumbing cavity affected by water intrusion from the main waste pipe riser was reportedly cleaned and observed to be encapsulated. Additionally, small section of gypsum board material behind one of the toilet fixture exhibiting minor water staining was also reportedly cleaned and observed to be encapsulated during the inspections of the work area. All accessible building materials encountered during the inspection or remediation activities were found in dry condition and there was no sign of any active water leak observed in the work areas. Cleaning activities were also reportedly performed within the containment including the plumbing cavity interior.

Following the conclusion of the remediation activities within the containment area, HygieneTech collected air samples for total fungi and surface samples for bacteria from the 5<sup>th</sup> Floor Women's Restroom containment area on February 9, 2014. Additionally, on February 8, 2014, one air sample for total fungi was also collected from the 5<sup>th</sup> Floor Women's Restroom and one outdoor sample each was collected on both the survey dates for comparison purposes. Air samples were collected for total (viable and nonviable) fungi analyses using a using a Zefon brand Bio-Pump Plus<sup>™</sup> equipped with Air-O-Cell cassettes. Surface samples were also collected for viable bacteria assessment over one square inch of surface area using Healthlink∗ Transporters⁻ (Rayon tipped swabs immersed in 0.5 milliliter of modified Stuart's transport medium). All such samples were subsequently analyzed for fungi (including yeasts, molds, rusts, smuts, and mushrooms) or were cultured over time and evaluated for total coliforms, fecal coliforms, *Escherichia coli* (*E. coli*) and *Enterococcus* by trained and experienced microbiologists at a laboratory accredited by the American Industrial Hygiene Association (AIHA) and that successfully participates in the AIHA Environmental Microbiology Proficiency Analytical Testing (EMPAT) Program. The airborne fungi and surface bacteria assessment analytical data with supporting and background information appears in the enclosed Table 21402001-6, 21402001-7, 21402001-8, and 21402001-9.

As presented in Tables 21402001-6 and 21402001-7, the airborne spore count data recorded on the survey dates showed fungal spore types outdoors such as ascospores, basidiospores, *Cladosporium*, colorless spores typical of *Penicillium/Aspergillus* species, and/or smuts. In the indoor areas tested, the data showed that airborne fungal spores were detected at low airborne concentrations, which included low levels of *Alternaria*, *Cladosporium*, *Nigrospora*, other brown, and/or colorless spores typical of *Penicillium/Aspergillus* species. The distribution of fungal spore types detected in the surveyed areas was generally consistent with those found outdoors, and the overall data within the tested areas were well below the overall outdoor data recorded outdoors. These data are considered unremarkable and are not believed to pose a health risk beyond that posed by the outdoor environment where exposures to airborne fungi are expected. Additionally as shown in the Tables 21402001-8 and 21402001-9, the viable bacterial screen results for the samples collected from varying surfaces within the containment showed no evidence of total coliforms, fecal coliforms, *Escherichia coli* (*E. coli*), or *Enterococcus*.

Mr. Vince Paul February 28, 2014 Document No. 21402001.2 Page 3



Be advised that the data provided with this correspondence only represent fungal growth and bacteria exposure potentials that existed at the time the final survey was performed and at the precise locations only, the latter of which were selected based on the available background information provided, and that fungal growth and bacteria exposure potentials may change due to changes in environmental conditions, such as those caused by water intrusion, use of mechanical systems, or other factors. If you have any comments or questions regarding the information contained in this correspondence, please feel free to contact our offices directly at (310) 370-8370.

Sincerely,

HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

Kenny K. Hsi, CIH Technical Director

### **HYGIENE TECHNOLOGIES** INTERNATIONAL, INC.



**CLIENT: California State Board of Equalization** 450 N Street

Sacramento, California 94279

TABLE 21402001-6 AIRBORNE TOTAL FUNGI RESULTS **450 N STREET** SACRAMENTO, CALIFORNIA **FEBRUARY 8, 2014** 

Results reported in spores per cubic meter of air (spores/M³)

SAMPLE NUMBER	21402001-6 TM01	21402001-6	, .	
SAMPLING LOCATION/ACTIVITIES	5 <sup>th</sup> Floor; Women's Restroom; adjacent to containment; approximately five feet above floor/Abatement activities in progress	Outdoors; northeastern corner of building; approximately five feet above floor/Normal outdoor activities	This column intentionally left blank	This column intentionally left blank
START/STOP	13:10:00/13:15:00	14:39:00/14:44:00		
SAMPLE TIME	5 minutes	5 minutes		
Alternaria	13			
Ascospores		850		
Basidiospores		1,300		
Botrytis				
Chaetomium				
Cladosporium	110	430		
Curvularia				
Epicoccum				
Myrothecium				
Nigrospora	13			
Oidium				
Other brown	27			
Other colorless				
Penicillium/Aspergillus types	160	270		
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)		13		
Stachybotrys				
Torula				
Ulocladium				
Zygomycetes				
Hyphal fragments	13	13		
Background debris*	2+	1+		
TOTAL**	320	2,800		

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

## HYGIENE TECHNOLOGIES INTERNATIONAL, INC.



CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21402001-7
AIRBORNE TOTAL FUNGI RESULTS
CLEARANCE
450 N STREET
SACRAMENTO, CALIFORNIA
FEBRUARY 9, 2014

Results reported in spores per cubic meter of air (spores/M³)

SAMPLE NUMBER	21402001-1 TM01	21402001-1 TM02OUT		
SAMPLING LOCATION/ACTIVITIES	Restroom; southeastern corner; within containment; about center; approximately five feet above floor/Post abatement; sampling activities only		This column intentionally left blank	This column intentionally left blank
START/STOP	05:09:00/05:14:00	05:42:00/05:47:00		
SAMPLE TIME	5 minutes	5 minutes		
Alternaria				
Ascospores		1,200		
Basidiospores		2,500		
Botrytis				
Chaetomium				
Cladosporium		430		
Curvularia				
Epicoccum				
Myrothecium				
Nigrospora				
Oidium				
Other brown	13			
Other colorless				
Penicillium/Aspergillus types		53		
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)		13		
Stachybotrys				
Torula				
Ulocladium				
Zygomycetes				
Hyphal fragments	13	<13		
Background debris*	2+	<1+		
TOTAL**	13	4,200		

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

# HYGIENE TECHNOLOGIES INTERNATIONAL, INC.



CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21402001-8
SURFACE BACTERIA
450 N STREET
SACRAMENTO, CALIFORNIA
FEBRUARY 9, 2014

SAMPLE NUMBER	SAMPLING LOCATION	APPROXIMATE AREA SAMPLED (in <sup>2</sup> )	Enterococcus (MPN/swab)	Escherichia coli (MPN/swab)	Total Coliform (MPN/swab)	COMMENTS
21402001-8 S01	5 <sup>th</sup> Floor; Women's Restroom; southeastern corner; within containment; plumbing cavity interior; eastern partition wall immediately adjacent to wall opening and at junction with floor; from vertical surface of gypsum board	1	<10	<10	<10	N/A
21402001-8 S02	5 <sup>th</sup> Floor; Women's Restroom; southeastern corner; within containment; plumbing wall cavity opening area; from horizontal surface of metal framing	1	<10	<10	<10	N/A
21402001-8 S03	5 <sup>th</sup> Floor; Women's Restroom; southeastern corner; within containment; plumbing wall cavity opening area; from horizontal surface of exposed gypsum board material	1	<10	<10	<10	N/A

#### **LEGEND**

in<sup>2</sup>: Square inch

MPN: Most probable number

<: Less than (detection limit indicated)

# HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21402001-9
SURFACE BACTERIA
450 N STREET
SACRAMENTO, CALIFORNIA
FEBRUARY 9, 2014

SAMPLE NUMBER	LOCATION	APPROXIMATE AREA SAMPLED (sq/in)	TOTAL COLIFORM	FECAL COLIFORM	ESCHERICHIA COLI (E. Coli)
21402001-8 S01	5 <sup>th</sup> Floor; Women's Restroom; southeastern corner; within containment; plumbing cavity interior; eastern partition wall immediately adjacent to wall opening and at junction with floor; from vertical surface of gypsum board	1	Absent	Absent	Absent
21402001-8 S02	5 <sup>th</sup> Floor; Women's Restroom; southeastern corner; within containment; plumbing wall cavity opening area; from horizontal surface of metal framing	1	Absent	Absent	Absent
21402001-8 S03	5 <sup>th</sup> Floor; Women's Restroom; southeastern corner; within containment; plumbing wall cavity opening area; from horizontal surface of exposed gypsum board material	1	Absent	Absent	Absent



Report for:

Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Hygiene Technologies International, Inc. 3625 Del Amo Boulevard, Suite 180 Torrance, CA 90503-8370

Regarding: Project: 21402001-8 EML ID: 1169060

Approved by:

Technical Manager

Dr. Kamashwaran Ramanathan

Dates of Analysis:

QuantiTray-sewage screen: 02-10-2014

Service SOPs: QuantiTray-sewage screen (1055)

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

#### EMLab P&K

1150 Bayhill Drive, Suite 100, San Bruno, CA 94066 (866) 888-6653 Fax (650) 829-5852 www.emlab.com

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Re: 21402001-8

Date of Sampling: 02-09-2014 Date of Receipt: 02-09-2014 Date of Report: 02-10-2014

#### **MPN Quantitray**

Location:	21402001-8-S01	21402001-8-S02	21402001-8-S03
Comments (see below)	A	A	A
Lab ID-Version‡:	5291446-1	5291447-1	5291448-1
Date Prepared	02/10/14	02/10/14	02/10/14
Date Analyzed	02/10/14	02/10/14	02/10/14
	MPN/swab	MPN/swab	MPN/swab
E. coli	< 10	< 10	< 10
Enterococcus	< 10	< 10	< 10
Total coliform	< 10	< 10	< 10

Comments: A) Sample prepared on 02/09/2014.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

EMLab P&K, LLC



Report for:

Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Hygiene Technologies International, Inc. 3625 Del Amo Boulevard, Suite 180 Torrance, CA 90503-8370

Regarding: Project: 21402001-8 EML ID: 1169060

Approved by:

Technical Manager

Dr. Kamashwaran Ramanathan

Dates of Analysis: Fecal Coliform, Total Coliform, E. coli-P/A: 02-10-2014

Service SOPs: Fecal Coliform, Total Coliform, E. coli-P/A (1574, (1218 in Marlton, NJ))

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

1150 Bayhill Drive, Suite 100, San Bruno, CA 94066 (866) 888-6653 Fax (650) 829-5852 www.emlab.com

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21402001-8

Date of Sampling: 02-09-2014 Date of Receipt: 02-09-2014 Date of Report: 02-10-2014

#### COLIFORM WITH E. COLI SCREEN\*

Location:	21402001-8-S01	21402001-8-S02	21402001-8-S03
Comments (see below)	None	None	None
Lab ID-Version‡:	5292123-1	5292124-1	5292125-1
Sample type:	Swab sample	Swab sample	Swab sample
Setup Time:	02/09/14 12:10	02/09/14 12:10	02/09/14 12:10
Total Coliforms	Absent	Absent	Absent
E. coli	Absent	Absent	Absent
Fecal Coliforms	Absent	Absent	Absent

#### **Comments:**

Based on samples delivered. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect results. EMLab P&K hereby disclaims any liability for indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken in reliance upon, this report; and its actual direct damages arising out of the use or interpretation of the data contained in, or any actions or omitted taken in reliance upon, this report shall be limited to the cost of this report.

EMLab P&K, LLC EMLab ID: 1169060, Page 2 of 2

<sup>\*</sup> Reported as presence or absence of coliforms and of *Escherichia coli* ( $E.\ coli$ ) determined by MUG (4-methylumbelliferyl-B-D-glucuronide) test. "Coliforms" is a term that refers to the fermentative Gram negative rods belonging to the Enterobacteriaceae family. Fecal coliforms previously referred to one member of this family,  $E.\ coli$ , which is a common organism in the human intestinal tract. More recently, fecal coliforms have been defined as "thermotolerant coliforms" and include all coliforms which grow and ferment lactose with gas and acid at  $44.5 \pm 0.2^{\circ}$ C. This definition includes Klebsiella. However, since Klebsiella has been isolated from environmental samples in the apparent absence of fecal pollution,  $E.\ coli$  is a more specific indicator organism for sewage spills. Non-fecal coliforms are widely distributed in nature and are free living in water, soil, and on plants. Thus, the presence of small numbers of environmental coliforms should not be considered abnormal or of any particular concern for human safety.

<sup>‡</sup> A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



Report for:

Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Hygiene Technologies International, Inc. 3625 Del Amo Boulevard, Suite 180 Torrance, CA 90503-8370

Regarding: Project: 21402001-6

EMĹ ID: 1169368

Approved by:

Dates of Analysis: Spore trap analysis: 02-10-2014

Technical Manager Melissa Tracey

Service SOPs: Spore trap analysis (1038) AIHA-LAP, LLC accredited service, Lab ID #179768

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Re: 21402001-6

Date of Sampling: 02-08-2014 Date of Receipt: 02-10-2014 Date of Report: 02-10-2014

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	214020	01-6 TM01	21402001-	6 TM02OUT		
Comments (see below)	1	None	N	Vone		
Lab ID-Version‡:	529	02676-1	529	2677-1		
Analysis Date:	02/2	10/2014	02/1	/10/2014		
	raw ct.	spores/m3	raw ct.	spores/m3		
Alternaria	1	13		_		
Ascospores			16	850		
Basidiospores			24	1,300		
Chaetomium						
Cladosporium	2	110	8	430		
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora	1	13				
Other brown	2	27				
Other colorless						
Penicillium/Aspergillus types†	3	160	5	270		
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes			1	13		
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		1+			
Hyphal fragments/m3	13		13			
Pollen/m3	< 13		< 13			
Skin cells (1-4+)	1+		< 1+			
Sample volume (liters)	75		75			
§ TOTAL SPORES/m3		320		2,800		

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC

EMLab ID: 1169368, Page 2 of 2

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21402001-6

Date of Sampling: 02-08-2014 Date of Receipt: 02-10-2014 Date of Report: 02-10-2014

#### MoldRANGE<sup>TM</sup>: Extended Outdoor Comparison

Outdoor Location: 21402001-6 TM02OUT

Fungi Identified	Outdoor	,	Typica	l Outo	loor Da	ıta for	:	Typical Outdoor Data for:						
	data	Febi	ruary ir	n Calife	ornia† (	n‡=16	302)	The er	ntire yea	ar in Ca	lifornia	(n‡=1	99769)	
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %	
Generally able to grow indoors*														
Alternaria	-	13	13	20	44	67	38	13	13	27	67	110	54	
Bipolaris/Drechslera group	-	7	13	13	27	40	7	7	13	13	27	40	12	
Chaetomium	-	7	13	13	27	40	9	8	13	13	27	47	19	
Cladosporium	430	80	150	400	1,000	1,700	95	110	210	610	1,600	2,800	97	
Curvularia	-	7	10	13	13	27	2	7	13	13	27	53	6	
Nigrospora	-	7	13	13	13	27	4	7	13	13	27	53	8	
Other brown	-	11	13	13	27	47	29	13	13	13	40	53	34	
Penicillium/Aspergillus types	270	53	66	200	490	820	82	53	100	210	590	1,000	84	
Stachybotrys	-	13	13	13	40	80	3	7	13	13	33	67	4	
Torula	-	7	13	13	40	53	5	8	13	13	40	67	12	
Seldom found growing indoors**														
Ascospores	850	27	53	160	510	960	72	25	53	110	360	690	71	
Basidiospores	1,300	53	110	430	1,800	3,900	95	53	80	270	990	2,300	93	
Rusts	-	8	13	13	40	73	14	13	13	13	53	80	26	
Smuts, Periconia, Myxomycetes	13	13	13	27	67	110	54	13	13	40	110	210	68	
§ TOTAL SPORES/m3	2,800													

<sup>†</sup>The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

EMLab P&K, LLC EMLab ID: 1169368, Page 1 of 1

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

<sup>\*</sup> The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

<sup>\*\*</sup> These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

 $<sup>\</sup>ddagger$ n = number of samples used to calculate data.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21402001-6

Date of Sampling: 02-08-2014 Date of Receipt: 02-10-2014 Date of Report: 02-10-2014

#### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

Outdoor Summary: 21402001-6 TM02OUT:

Species detected		Outdoor	r sample sj	oores/m3	Typical outdoor ranges	Freq.
	<100	1K	10K	>100K	(North America)	%
Ascospores				850	13 - 210 - 5,700	76
Basidiospores				1,300	15 - 450 - 24,000	92
Cladosporium				430	27 - 480 - 10,000	90
Penicillium/Aspergillus types				270	] 13 - 170 - 2,700	68
Smuts, Periconia, Myxomycetes				13	7 - 53 - 930	64
Total				2,800		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

#### **Indoor Samples**

**Location:** 21402001-6 TM01

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)						
Result: 11%	dF: N/A Result: N/A Critical value: N/A Inside Similar: N/A	Result: 0.4000	dF: 8 Result: -0.2321 Critical value: 0.6190 Outside Similar: No	Score: 121 Result: Low						
Species 1	Detected	Spores/m3								
		<100 1K	10K	>100K						
	Alternaria			13						
	Cladosporium			110						
	Nigrospora			13						
	Other brown			27						
Penicillium/Aspergillus types				160						
	Total			320						

<sup>\*</sup> The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

<sup>\*\*</sup> An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

<sup>\*\*\*</sup> The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21402001-6

Date of Sampling: 02-08-2014 Date of Receipt: 02-10-2014 Date of Report: 02-10-2014

#### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

\*\*\*\* MoldSCORE<sup>TM</sup> is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

EMLab P&K, LLC EMLab ID: 1169368, Page 2 of 2

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21402001-6

Date of Sampling: 02-08-2014 Date of Receipt: 02-10-2014 Date of Report: 02-10-2014

**MoldSCORE**<sup>TM</sup>: **Spore Trap Report Outdoor Sample:** 21402001-6 TM02OUT

Fungi Identified	Oı	utdo	00	r sai	որ	ole	S	or	es	/m	3	Raw	Spores/
<u> </u>	<10	00		1K	_		1	0 <b>K</b>	>	>100	K	count	m3
Generally able to grow indoors*													
Alternaria												ND	< 13
Bipolaris/Drechslera group												ND	< 13
Chaetomium												ND	< 13
Cladosporium												8	430
Curvularia												ND	< 13
Nigrospora												ND	< 13
Penicillium/Aspergillus types†												5	270
Stachybotrys												ND	< 13
Torula												ND	< 13
Seldom found growing indoors**													
Ascospores												16	850
Basidiospores												24	1,300
Rusts												ND	< 13
Smuts, Periconia, Myxomycetes												1	13
Total													2,840

**Location:** 21402001-6 TM01

Fungi Identified	In	Indoor sample spores/m3								Raw	Spores/	
	<100		1	K			10K		>10	0K	count	m3
Generally able to grow indoors*												
Alternaria											1	13
Bipolaris/Drechslera group											ND	< 13
Chaetomium					Ш						ND	< 13
Cladosporium											2	110
Curvularia											ND	< 13
Nigrospora											1	13
Other brown											2	27
Penicillium/Aspergillus types†											3	160
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores					$\prod$						ND	< 13
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes											ND	< 13
Total												320

MoldSCORE;									
100	Score								
			105						
			100						
			100						
			104						
			100						
			105						
			111						
			121						
			100						
			100						
			100						
			100						
			100						
			100						
Fina	121								

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21402001-6

Date of Sampling: 02-08-2014 Date of Receipt: 02-10-2014 Date of Report: 02-10-2014

#### MoldSCORETM: Spore Trap Report

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of

a single morphological type of basidiospore on an inside sample should be considered significant.

†The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.

EMLab P&K, LLC EMLab ID: 1169368, Page 2 of 2



Report for:

Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Hygiene Technologies International, Inc. 3625 Del Amo Boulevard, Suite 180 Torrance, CA 90503-8370

Regarding: Project: 21402001-7

EMĹ ID: 1169369

Approved by:

()

Technical Manager Melissa Tracey

Service SOPs: Spore trap analysis (1038) AIHA-LAP, LLC accredited service, Lab ID #179768

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

Dates of Analysis:

Spore trap analysis: 02-10-2014

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu Re: 21402001-7

Date of Sampling: 02-09-2014 Date of Receipt: 02-10-2014 Date of Report: 02-10-2014

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	214020	01-7 TM01	21402001-7 TM02OUT			
Comments (see below)	]	None	N	Vone		
Lab ID-Version‡:	529	92710-1	529	2711-1		
Analysis Date:	02/	10/2014	02/1	10/2014		
	raw ct.	spores/m3	raw ct.	spores/m3		
Ascospores		<del>-</del>	23	1,200		
Basidiospores			47	2,500		
Botrytis						
Chaetomium						
Cladosporium			8	430		
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other brown	1	13				
Other colorless						
Penicillium/Aspergillus types†			1	53		
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes			1	13		
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		< 1+			
Hyphal fragments/m3	13		< 13			
Pollen/m3	< 13		< 13			
Skin cells (1-4+)	1+		< 1+			
Sample volume (liters)	75		75			
§ TOTAL SPORES/m3		13		4,200		

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC EMLab ID: 1169369, Page 2 of 2

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21402001-7

Date of Sampling: 02-09-2014 Date of Receipt: 02-10-2014 Date of Report: 02-10-2014

### MoldRANGE<sup>TM</sup>: Extended Outdoor Comparison Outdoor Location: 21402001-7 TM02OUT

**Fungi Identified** Outdoor **Typical Outdoor Data for: Typical Outdoor Data for:** The entire year in California† (n‡=199769) data February in California† (n‡=16302) spores/m3 very low med high very freq % very low med high very freq % low higȟ low Generally able to grow indoors\* Alternaria Bipolaris/Drechslera group Chaetomium Cladosporium 1,000 1,700 1,600 2,800 Curvularia Nigrospora Other brown Penicillium/Aspergillus types 1,000 Stachybotrys Torula Seldom found growing indoors\*\* Ascospores 1,200 1,800 2,300 **Basidiospores** 2,500 3,900 Rusts Smuts, Periconia, Myxomycetes § TOTAL SPORES/m3 4,200

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

 $\ddagger$ n = number of samples used to calculate data.

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EMLab P&K, LLC EMLab ID: 1169369, Page 1 of 1

<sup>\*</sup> The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

<sup>\*\*</sup> These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21402001-7

Date of Sampling: 02-09-2014 Date of Receipt: 02-10-2014 Date of Report: 02-10-2014

#### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

Outdoor Summary: 21402001-7 TM02OUT:

Species detected		Outdoo	r sample sp	Typical outdoor ranges	Freq.	
	<100	1K	10K	>100K	(North America)	<b>%</b>
Ascospores				1,200	13 - 210 - 5,700	76
Basidiospores				2,500	15 - 450 - 24,000	92
Cladosporium				430	27 - 480 - 10,000	90
Penicillium/Aspergillus types				53	13 - 170 - 2,700	68
Smuts, Periconia, Myxomycetes				13	7 - 53 - 930	64
Total				4,200		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

#### **Indoor Samples**

Location: 21402001-7 TM01

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		Spearma correlat (indoor/o	ion***	MoldSCORE**** (indoor/outdoor)	
Result: < 1%	dF: N/A Result: N/A Critical value: N/A Inside Similar: N/A	Result: 0.0000		dF: 6 Result: -0.1429 Critical value: 0.7714 Outside Similar: No		Score: 105 Result: Low	
Species Detected				Spore	s/m3		
		<100	1K		10K	>100K	
	Other brown					13	
	Total					13	

<sup>\*</sup> The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

<sup>\*\*</sup> An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

<sup>\*\*\*</sup> The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21402001-7

Date of Sampling: 02-09-2014 Date of Receipt: 02-10-2014 Date of Report: 02-10-2014

#### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

\*\*\*\* MoldSCORE<sup>TM</sup> is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

EMLab P&K, LLC EMLab ID: 1169369, Page 2 of 2

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Date of Sampling: 02-09-2014 Date of Receipt: 02-10-2014 Date of Report: 02-10-2014

Re: 21402001-7

MoldSCORE<sup>TM</sup>: Spore Trap Report
Outdoor Sample: 21402001-7 TM02OUT

Fungi Identified	Oı	Outdoor sample spores/m3 R							Raw	Spores/	
	<10	00		1K		10K		>10	0K	count	m3
Generally able to grow indoors*											
Alternaria										ND	< 13
Bipolaris/Drechslera group										ND	< 13
Chaetomium										ND	< 13
Cladosporium										8	430
Curvularia										ND	< 13
Nigrospora										ND	< 13
Penicillium/Aspergillus types†										1	53
Stachybotrys										ND	< 13
Torula										ND	< 13
Seldom found growing indoors**											
Ascospores			Ш							23	1,200
Basidiospores										47	2,500
Rusts										ND	< 13
Smuts, Periconia, Myxomycetes			Ш							1	13
Total											4,227

**Location:** 21402001-7 TM01

Fungi Identified	Indoor sample spores/m3							Raw	Spores/		
	<100			1K			10K	>1	00K	count	m3
Generally able to grow indoors*											
Alternaria										ND	< 13
Bipolaris/Drechslera group										ND	< 13
Chaetomium										ND	< 13
Cladosporium										ND	< 13
Curvularia										ND	< 13
Nigrospora										ND	< 13
Other brown										1	13
Penicillium/Aspergillus types†										ND	< 13
Stachybotrys										ND	< 13
Torula										ND	< 13
Seldom found growing indoors**											
Ascospores										ND	< 13
Basidiospores										ND	< 13
Rusts										ND	< 13
Smuts, Periconia, Myxomycetes										ND	< 13
Total											13

MoldSCORE; 200 300 Score								
			100					
			100					
			100					
			100					
			100					
			100					
			105					
			100					
			100					
			100					
			100					
			100					
			100					
			100					
Final	105							

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu

Re: 21402001-7

Date of Sampling: 02-09-2014 Date of Receipt: 02-10-2014 Date of Report: 02-10-2014

#### MoldSCORETM: Spore Trap Report

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of

a single morphological type of basidiospore on an inside sample should be considered significant.

†The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.

EMLab P&K, LLC EMLab ID: 1169369, Page 2 of 2



Hygiene Technologies International, Inc.

3625 Del Amo Boulevard, Suite 180 Torrance, California 90503-1643 (310) 370-8370 (310) 370-2474 FAX

### Request For Analysis www.hygienebech.com

Project Number/Purcha	se Order:	140200	1-8 Date Submitted: 2914
Project Contact:			
Lab Destination:	EMLA		Lab Contact: Sample Receiving
SAMPLE ID	VOLUME	MEDIA	ANALYSIS REQUESTED
21402001-8501	MA	swab	Quantitray Sewage Screen
21402101-8502	1	SWES	
21402001-8503	<b>₩</b>	SWGS	
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Special Instructions:	P 6416	ana wz	& For Fecal Colifornia
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	8 W. R	- Rvim)	
1. Sampled by:	- Our last in	2 3 14 6 65	Received by:
2. Relinquished by:	<del></del>	on 2 9 14 01	Received by:
3. Relinquished by:			Received by: 12:05
		Please include signa	ture, date, and time
Lab Use Only:			· ·- <del></del>



001169368

Hygiene Technologies International, Inc.

(310) 370-24741-AX www.hygienetech.com

Request For Analysis

	<u> </u>						
Project Number/Purcha	Sandh	2140201 MIKibsi	Date Submitted: 2 10 14  Turnaround Required: Swan 6 day				
! .							
Lab Destination:	EMLA	B 7814	Lab Contact: 84mp & Recening				
SAMPLE ID	VOLUME	MEDIA	ANALYSIS REQUESTED				
21402W1-6 TM 01	75L	A18-0-(d)	Sport Toup Analysis Contal Fungi)				
2140200-6 Torozant	756	Anso-cell	1) 1 5				
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	:						
Special Instructions:	~ h- 6	P/~ W.	D. D. Dan				
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4	3 4 3/4 44 66	- Col	210 1/1/1/ 12/11/16/01212				
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2. Relinquished by:	-Handum	0~2(10)14	•				
3. Relinquished by:	·	Please include signs	Received by:				
Please include signature, date, and time							
Lab Use Only:							
			!				



Hygiene Technologies International, Inc.

001169369

f, Suite 180 )0503-1643 (310) 370-8370

(310) 370-2474 FAX www.hyglenetech.com

## Request For Analysis

Project Number/Purchase Order: 21402001-7 Date Submitted: 2/10/14									
Project Contact: LS	andhu	1 K-451	Turnaround Req	•					
Lab Destination;		B P 8 1℃	Lab Contact:						
SAMPLE ID	VOLUME	MEDIA	ANALYSIS REQUESTED						
21402101-7-119901	25L	Arro-Cell	Spore Trap						
21402001-7 Trozout	_75L_	ANG-CON	, n	1, 2,	· n ·				
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